Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. (Currently Amended) A method for generating ~~an~~ a Short Message Services (SMS) business message for processing by a software application in an SMS commerce infrastructure system, comprising:

sending a list of a plurality of available inbound templates for an SMS business message to a mobile recipient;

receiving from the mobile recipient a selection of at least one of the available inbound templates from the list;

generating at least one encoded categorized SMS business message in response to and corresponding to the selection received from the mobile recipient such that the generated at least one encoded categorized SMS business message includes a corresponding inbound template;

sending the generated at least one encoded categorized SMS business message to the mobile recipient; ~~and~~

receiving at least one request sent from the mobile recipient in response to the sending of the at least one encoded categorized SMS business message to perform a business transaction in a data processing system;

preparing, by a business user, a new SMS business message to be sent to the mobile recipient such that the business user uses a graphic user interface (GUI) of a computer to invoke an SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves an SMS universal encoding template (SMS UET) which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message by the business user such that the business user selects, using the SMS MCW, an existing type of SMS business message format defined by the SMS UET and then enters data at the GUI based on pre-defined data parameters for the existing selected type of SMS business message format to automatically prepare the new SMS business message;

retrieving, by a data collection interface (DCI) of a server which is in communication with the computer, the data entered at the GUI of the computer by the business user to prepare the new SMS business message;

validating, by the server, the data retrieved by the server DCI by comparing the data entered at the GUI to the SMS UET which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format;

generating, by the server, an SMS message instance (SMS MI) which is categorized based on the type of SMS business message format selected by the business user;

transmitting, by the server, the SMS MI to a wireless gateway for delivery of the SMS MI to the mobile recipient;

receiving from the mobile recipient an incoming SMS message in response to the SMS MI that was transmitted by the server to the mobile recipient such that an inbound template identification (ID) is extracted from the incoming SMS message by a runtime processor of the server;

parsing, by the server runtime processor, the incoming SMS message to decode data of the incoming SMS message using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID, such that the retrieved inbound template is associated with the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data of the incoming SMS message to a software application disposed in the server for processing of the decoded data under control of the software application.

2. (Previously presented) The method of claim 1, wherein the sending of the generated at least one encoded categorized SMS business message includes transmitting the SMS business message over a network to the mobile recipient.

3. (Original) The method of claim 2 wherein the SMS business message comprises:

a message text entry field for alerting the recipient about a commerce event; and

an encryption string entry field.

4. (Original) The method of claim 3 wherein the SMS business message further comprises:

a response indicator label;

a recipient data entry field associated with said response indicator label;

a recipient authentication indicator label; and

a recipient authentication data entry field associated with said recipient authentication indicator label.

5. (Previously presented) The method of claim 3 wherein said encryption string entry field is adapted to accept communication session identification data.

6. (Original) The method of claim 5 wherein said session identification data may be used to associate a response to a sent message.

7. (Original) The method of claim 6 wherein said session identification data may be used to identify a software application to process a response to a sent message.

8. (Previously presented) The method of claim 3 wherein said encryption string entry field is adapted to accept security data.

9. (Previously presented) The method of claim 4 wherein said recipient authentication data entry field is adapted to accept a personal identification number (PIN) from said mobile recipient.

10. (Previously presented) The method of claim 4 wherein the SMS business message further comprises:

a first recipient data entry field associated with said response indicator label, wherein said first recipient data entry field is adapted to allow a response to be inserted by a first mobile recipient; and

a second recipient data entry field associated with said authentication indicator label, wherein said second recipient data entry field is adapted to allow a response to be inserted by a second mobile recipient.

11. (Previously presented) The method of claim 1 wherein the generating of the at least one encoded categorized SMS business message comprises an encoding template which includes categorization meta data defining a categorization of SMS business messages, wherein:

the categorization represents a specific businesses intended usage;

the categorization meta data provides a definition of the categorization; and

the categorization meta data is parsable by a data processing system for generating SMS business messages.

12. (Previously presented) The method of claim 11 wherein the encoding template further comprises:

a message entry field for insertion of a message entry of full SMS message length for access by said mobile recipient, wherein:

said template provides an additional field in said SMS business message for categorization meta data; and

said meta data provides instructions for encoding a business intended usage of an SMS business message.

13. (Original) The method of claim 12 wherein said meta data includes instructions for dispatching said SMS business message including instructions selected from:

a message priority;

a delivery time;

a number of recipients;

a delivery channel;

a need for confirmation;

a need for authentication;

a need for encryption; and

an intended web application to handle a response.

14. (Original) The method of claim 12 wherein said meta data includes instructions for identifying a software application intended to handle a response to said SMS business message.

15. (Previously presented) The method of claim 2 further comprising the steps of:

receiving in a server an SMS response message sent from said mobile recipient in response to the sending of said at least one encoded categorized SMS business message;

decoding an encryption string within said SMS response message with an appropriate key to verify that said response message is directed to said server;

extracting identification from said SMS response message for processing information in said response;

identifying and obtaining a corresponding inbound template for said SMS response message from said server; and

parsing said SMS response message with said inbound template to extract incoming data and incoming instructions contained in said SMS response message, if any, for processing said data and instructions.

16. (Previously presented) The method of claim 15, further comprising:

forwarding said extracted incoming data and incoming instructions to an application server for processing.

17. (Previously presented) The method of claim 16 wherein said SMS response message includes:

an encryption string encoded with an encoding key;

identification information of a software application capable of processing said SMS response message; and

user authentication information.

18. (Original) The method of claim 17 wherein:

said server has access to said encoding key; and

said server has access to said inbound template.

19. (Previously presented) The method of claim 2, further comprising:

receiving in a server the at least one request sent from the mobile recipient as an SMS response message sent from said mobile recipient in response to the sending of said at least one encoded categorized SMS business message; and

tracking in a response tracking database said received SMS response message.

20. (Previously presented) The method of claim 19, further comprising:

identifying and parsing said received SMS response message using an inbound template selected from an inbound template database; and

processing said received SMS response message and forwarding the processed SMS response message to a software application to invoke a command in said data processing system.

21. (Currently Amended) A system to generate an SMS business message for delivery to a mobile recipient, comprising:

a server which includes:

a data collection interface to accept outgoing instructions and outgoing data for the mobile recipient in response to the mobile recipient having selected at least one of a plurality of SMS inbound templates from a list sent to the mobile recipient by the system;

a message encoding engine to generate an encoded SMS business message from information provided by the data collection interface, and corresponding to the selection by the mobile recipient of the at least one SMS inbound template, using an encoding template such that the SMS business message is a categorized SMS message formatted for processing by a data processing system; and

a dispatcher runtime processor to process said encoded SMS business message for transmission over a network to the mobile recipient;

a computer for automatically preparing, by a business user, a new SMS business message to be sent to the mobile recipient such that the business user uses a graphic user interface (GUI) of the computer to invoke an SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves an SMS universal encoding template (SMS UET) which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message by the business user such that the business user selects, using the SMS MCW, an existing type of SMS business message format defined by the SMS MCW and then enters data at the GUI based on pre-defined data parameters for the existing selected type of SMS business message format to automatically prepare the new SMS business message, wherein the server is in communication with the computer and the data collection interface is further configured to retrieve the data entered at the GUI of the computer by the business user to prepare the new SMS business message and the server validates the data retrieved by the server

DCI by comparing the data entered at the GUI by the business user to the SMS UET which has been retrieved by the server to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format, and wherein the server generates an SMS message instance (SMS MI) which is categorized based on the type of SMS business message format selected by the business user and the server transmits the SMS MI to a wireless gateway for delivery of the SMS MI to a mobile phone of the mobile recipient, where the mobile phone receives an incoming SMS message in response to the SMS MI that was transmitted by the server to the mobile recipient such that an inbound template identification (ID) is extracted from the incoming SMS message by a runtime processor of the server and the server runtime processor parses the incoming SMS message to decode data of the incoming SMS message using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID, such that the retrieved inbound template is associated with the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient, and where, in response to the decoded data, the server routes the decoded data of the incoming SMS message to a software application disposed in the server for processing of the decoded data under control of the software application.

22. (Currently Amended) A computer program product directly loadable into an internal memory of a digital computer, comprising software code portions for performing, when said product is executed on a computer, a method including:

sending a list of a plurality of available inbound templates for an SMS business message to a mobile recipient;

receiving from the mobile recipient a selection of at least one of the available inbound templates from the list;

generating at least one encoded categorized SMS business message in response to and corresponding to the selection received from the mobile recipient such that the generated at least one encoded categorized SMS business message includes a corresponding inbound template;

sending the generated at least one encoded categorized SMS business message to the mobile recipient; ~~and~~

receiving at least one request sent from the mobile recipient in response to the sending of the at least one encoded categorized SMS business message to perform a business

transaction in a data processing system;

preparing, by a business user, a new SMS business message to be sent to the mobile recipient such that the business user uses a graphic user interface (GUI) of a computer to invoke an SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves an SMS universal encoding template (SMS UET) which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message by the business user such that the business user selects, using the SMS MCW, an existing type of SMS business message format defined by the SMS MCW and then enters data based on pre-defined data parameters for the existing selected type of SMS business message format to automatically prepare the new SMS business message;

retrieving, by a data collection interface (DCI) of a server which is in communication with the computer, the data entered at the GUI of the computer by the business user to prepare the new SMS business message;

validating, by the server, the data retrieved by the server DCI by comparing the data entered at the GUI to the SMS UET which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format;

generating, by the server, an SMS message instance (SMS MI) which is categorized based on the type of SMS business message format selected by the business user;

transmitting, by the server, the SMS MI to a wireless gateway for delivery of the SMS MI to the mobile recipient;

receiving from the mobile recipient an incoming SMS message in response to the SMS MI that was transmitted by the server to the mobile recipient such that an inbound template identification (ID) is extracted from the incoming SMS message by a runtime processor of the server;

parsing, by the server runtime processor, the incoming SMS message to decode data of the incoming SMS message using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID, such that the retrieved inbound template is associated with the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data of the incoming SMS message to a software application disposed in the server for processing of the decoded data under control of the software application.

23. (Currently Amended) A method for processing an incoming e-commerce SMS response message received by a server from a mobile recipient responding to an outgoing e-commerce SMS message, comprising:

receiving, at the server, said SMS response message;

decoding an encryption string included within said SMS response message with an appropriate key to verify that said response message is directed to said server;

extracting identification from said SMS response message for processing information included in said response;

identifying and obtaining from a database a corresponding inbound message template for said response message from said server; ~~and~~

parsing said SMS response message with said inbound message template to extract data and instructions contained in said response message, if any, for processing said data and instructions;

receiving from the mobile recipient an incoming SMS message in response to an SMS business message instance (SMS MI) that was automatically prepared by a business user using an SMS message composing wizard (SMS MCW) and which was transmitted by the server to the mobile recipient such that an inbound template identification (ID) is extracted from the incoming SMS message by a runtime processor of the server;

parsing, by the server runtime processor, the incoming SMS message to decode data of the incoming SMS message using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID, such that the retrieved inbound template is associated with a type of SMS business message format previously selected by a business user and associated with the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data of the incoming SMS message to a software application disposed in the server for processing of the decoded data under control of the software application.

24-27. (Canceled)

28. (Currently Amended) A computer program product comprising software code which is directly loadable into a memory of a digital computer and which when executed by the digital computer performs a method that utilizes ~~includes~~ an SMS universal encoding template for

encoding outbound SMS business messages for a data processing system for transmission over a network[[;]], the method comprising:

employing categorization meta data to define ~~defining~~ a commerce categorization of outbound SMS messages such that said commerce categorization of outbound SMS messages represents a specific intended business usage of the outbound SMS message, wherein said categorization meta data provides definitions of messages and instructions that are parsable into runtime objects used by said data processing system to generate SMS business messages;

preparing, by a business user, new SMS business messages to be sent to a mobile recipient such that the business user uses a graphic user interface (GUI) of a computer to invoke an SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves an SMS universal encoding template (SMS UET) which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business messages by the business user such that the business user selects, using the SMS MCW, for each new SMS business message to be prepared, an existing type of SMS business message format defined by the SMS UET and then enters data at the GUI based on pre-defined data parameters for the selected type of SMS business message format to automatically prepare the new SMS business messages;

retrieving, by a data collection interface (DCI) of a server which is in communication with the computer, the data entered at the GUI of the computer by the business user to prepare the new SMS business messages;

validating, by the server, the data retrieved by the server DCI by comparing the data entered at the GUI to the SMS UET, which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business messages are properly formatted for the selected type(s) of SMS business message format(s);

generating for each new SMS business message, by the server, an SMS message instance (SMS MI) which is categorized based on the type of SMS business message format(s) selected by the business user; and

transmitting, by the server, each SMS MI to a wireless gateway for delivery of each SMS MI to a mobile recipient, wherein said categorization meta data provides definitions of each of said SMS messages and instructions that are parsable into semantic information used by said data processing system to encode and generate each said SMS MI for corresponding to said SMS business messages.